North Coast Watershed Assessment Program

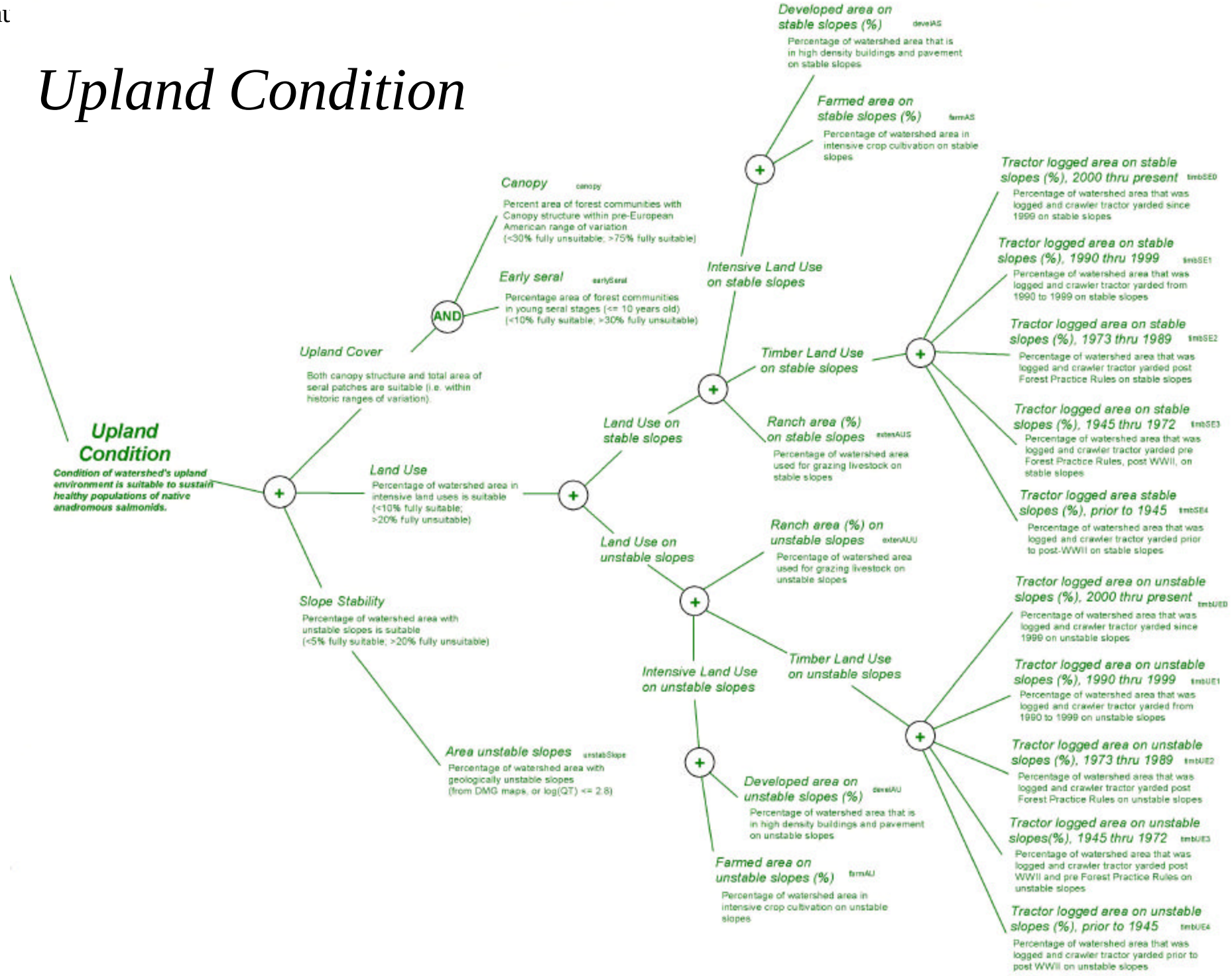
DRAFT

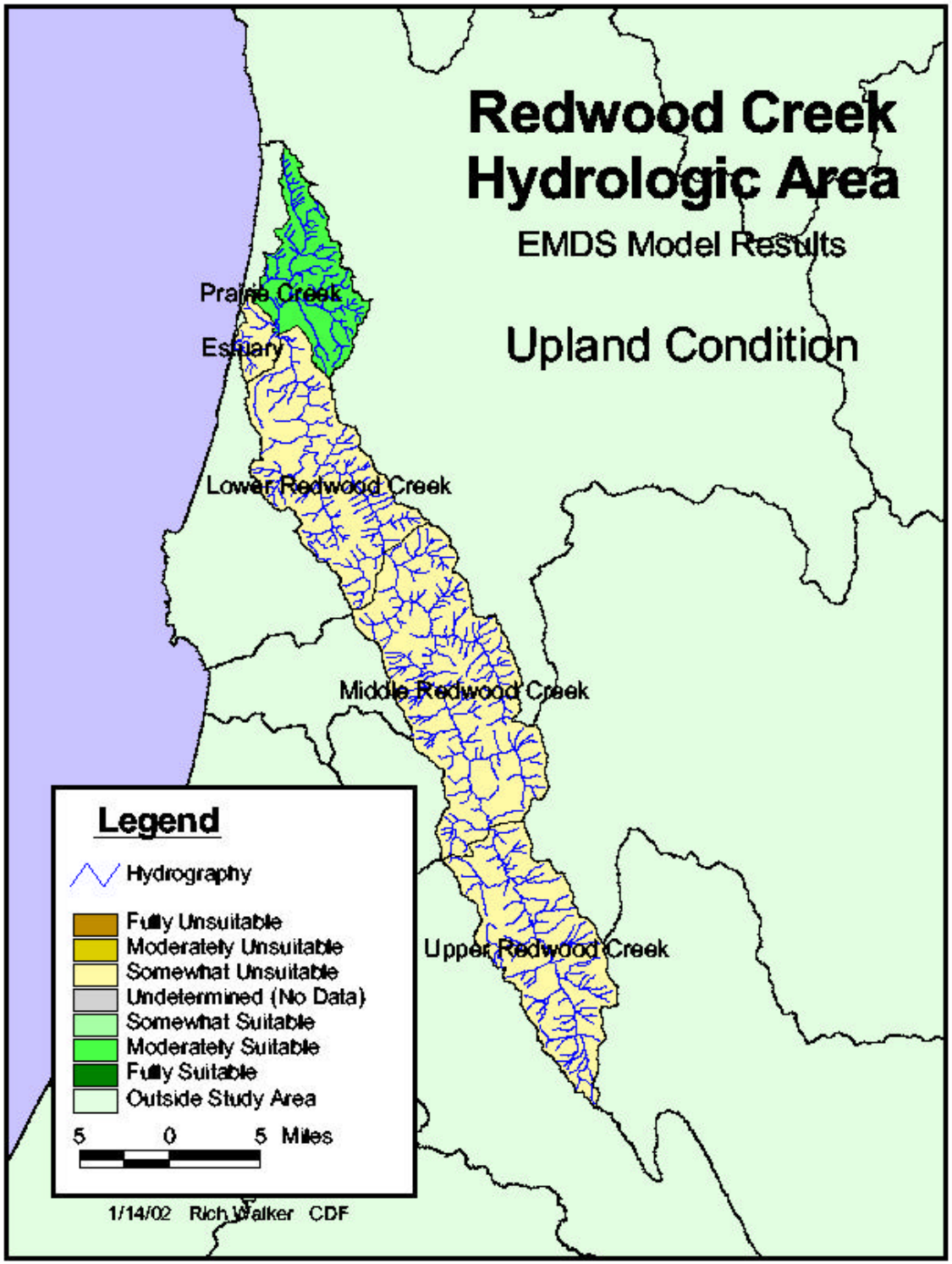
Redwood Creek Watershed Synthesis Report

The mission of the North Coast Watershed Assessment Program is to conserve and improve California's north coast anadromous salmonid populations by conducting, in cooperation with public and private landowners, systematic multi-scale assessments of watershed conditions to determine factors affecting salmonid production and recommend measures for watershed improvements.

Public Review Draft

Upland Condition





UPLAND CONDITION –

Proposition:

The condition of the upland in the Planning Watershed is suitable for sustaining healthy populations of native anadromous salmonids

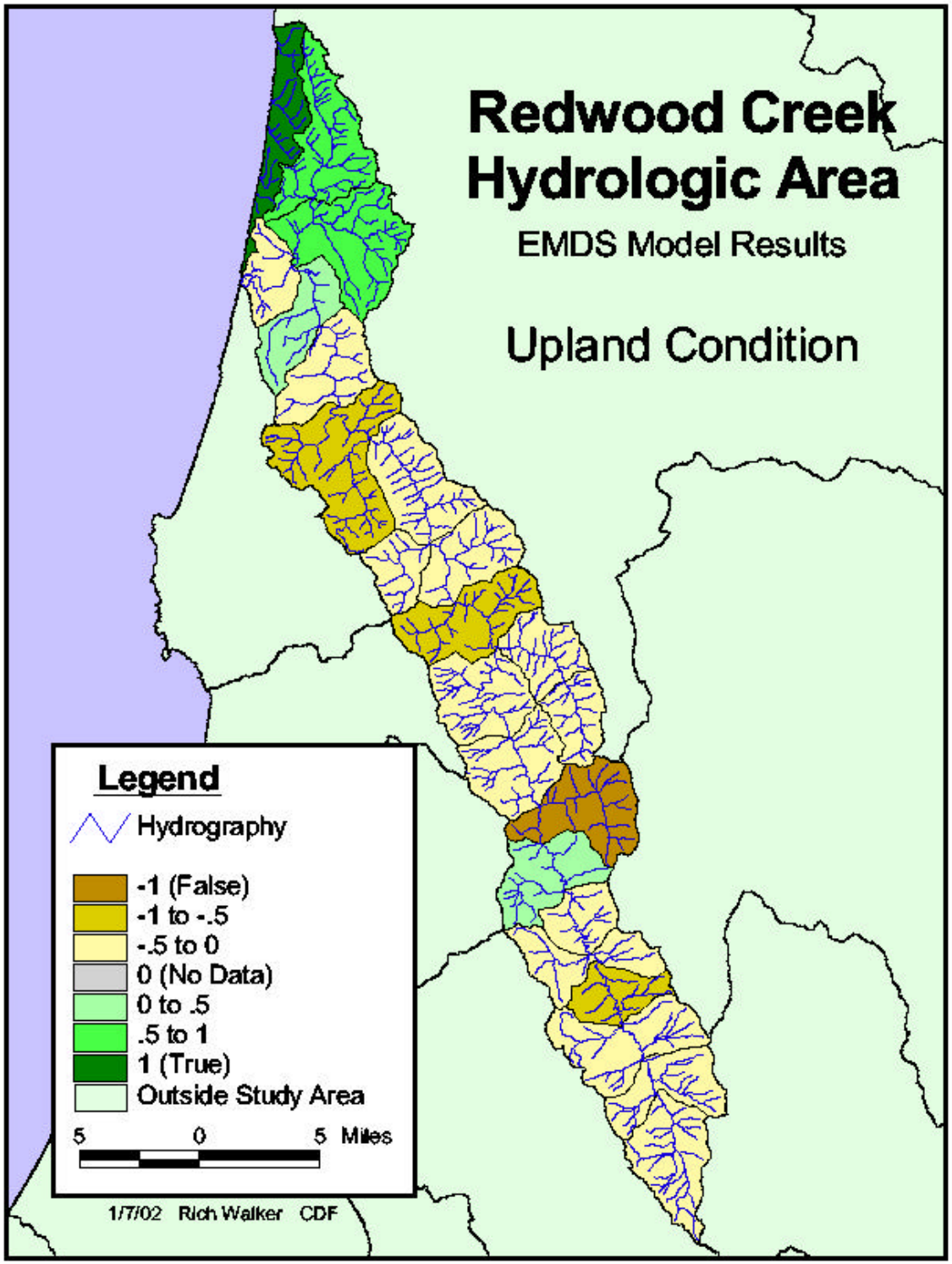
Evaluated as the mean value of:

UPLAND COVER – from Canopy and Seral Openings

LAND USE – from current intensive and extensive land use, and recent and historic timber harvest

SLOPE STABILITY – % area of unstable slopes

NOTE: Truth values at the highest levels represent the combined scores from lower level networks and thus are not calculated using a dependency curve.



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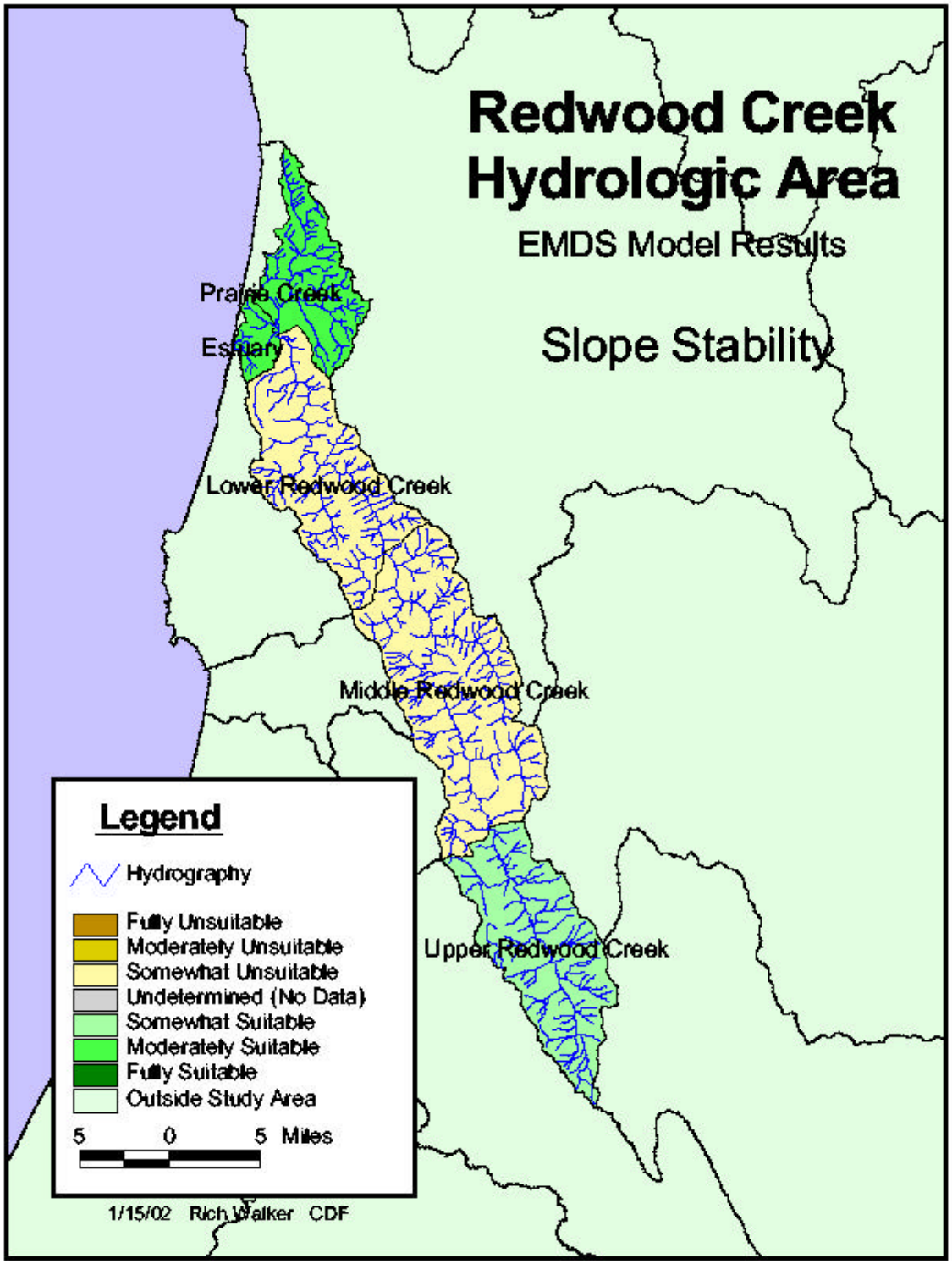


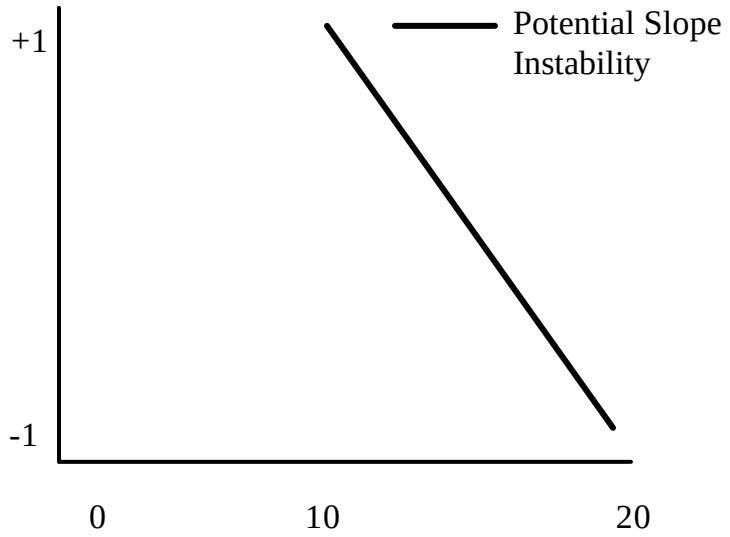
SLOPE STABILITY -

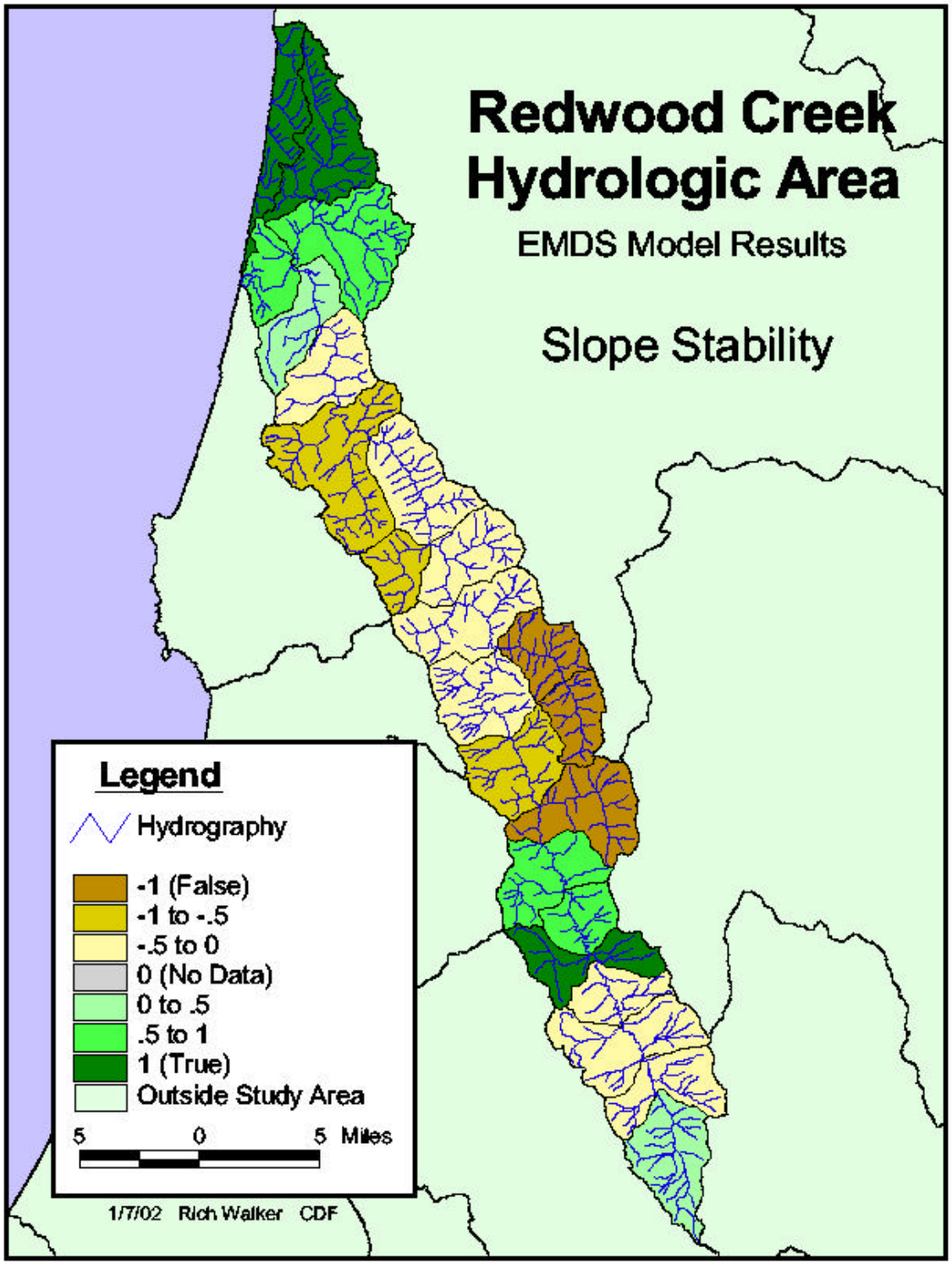
Proposition:

The natural slope stability in the Planning Watershed is suitable for sustaining healthy populations of native anadromous salmonids

Percentage of the planning watershed with significant erosion hazard. Potential unstable slopes are currently defined using SHALSTAB classes (q/T ratio), where log(q/T) <= -2.8.

Break Points: 12% low, 18% high
Units: area/area (%)





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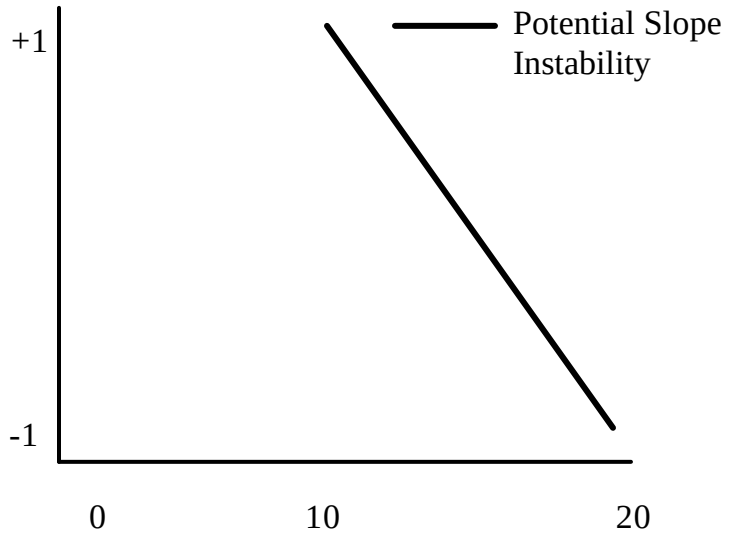
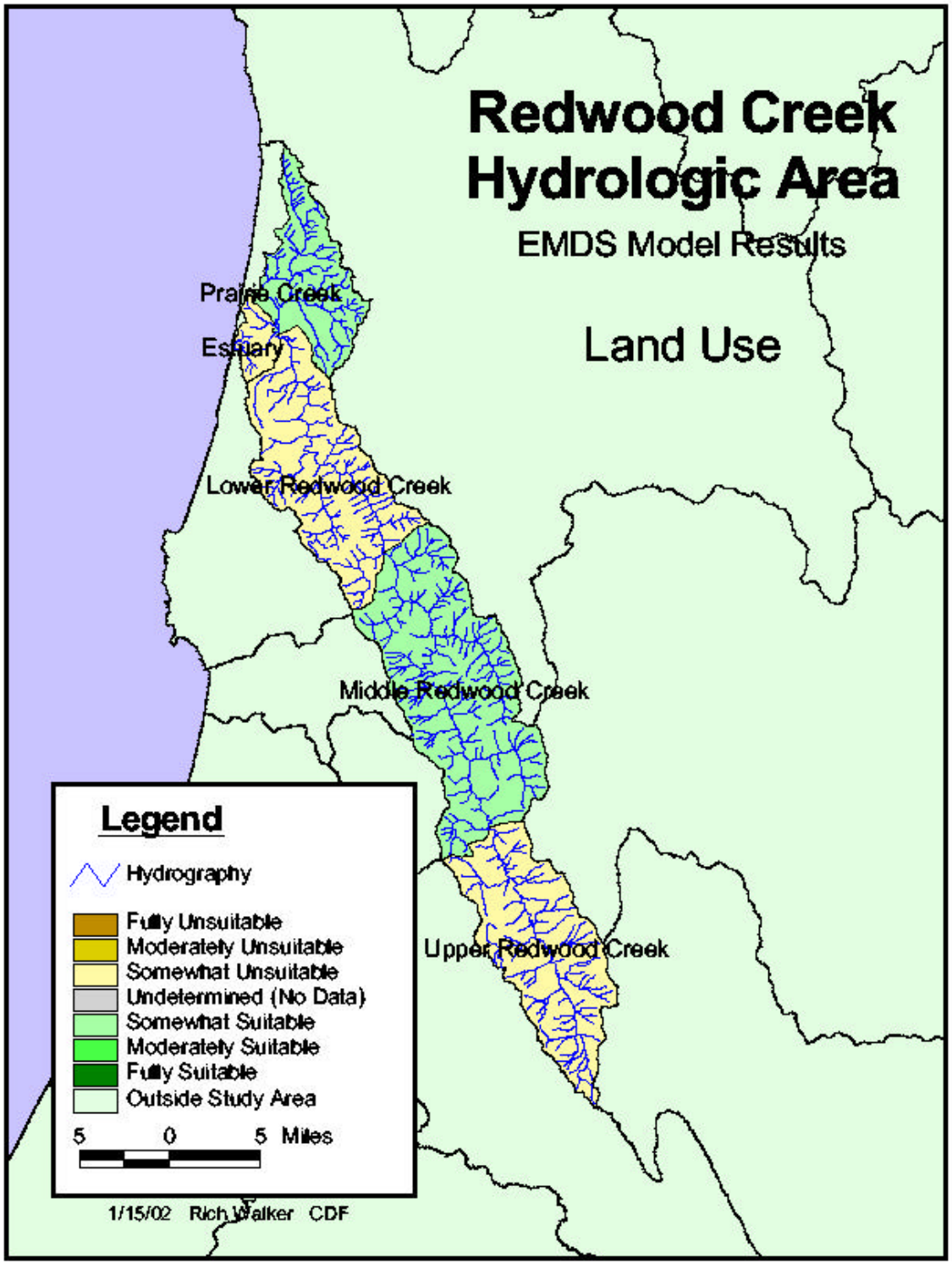




LAND USE –

Proposition:

Current and historic land use in the Planning Watershed are suitable for sustaining healthy populations of native anadromous salmonids

Percentages of the land area of the watershed are split up by potential slope stability (stable vs. unstable) and weighted by intensity (f(time since occurrence, activity)).

INTENSIVE – current permanent high density roads and buildings and row crop cultivation

TIMBER HARVEST – tractor logged and yarded, according to era:

-Last two years

-1990 through 1999

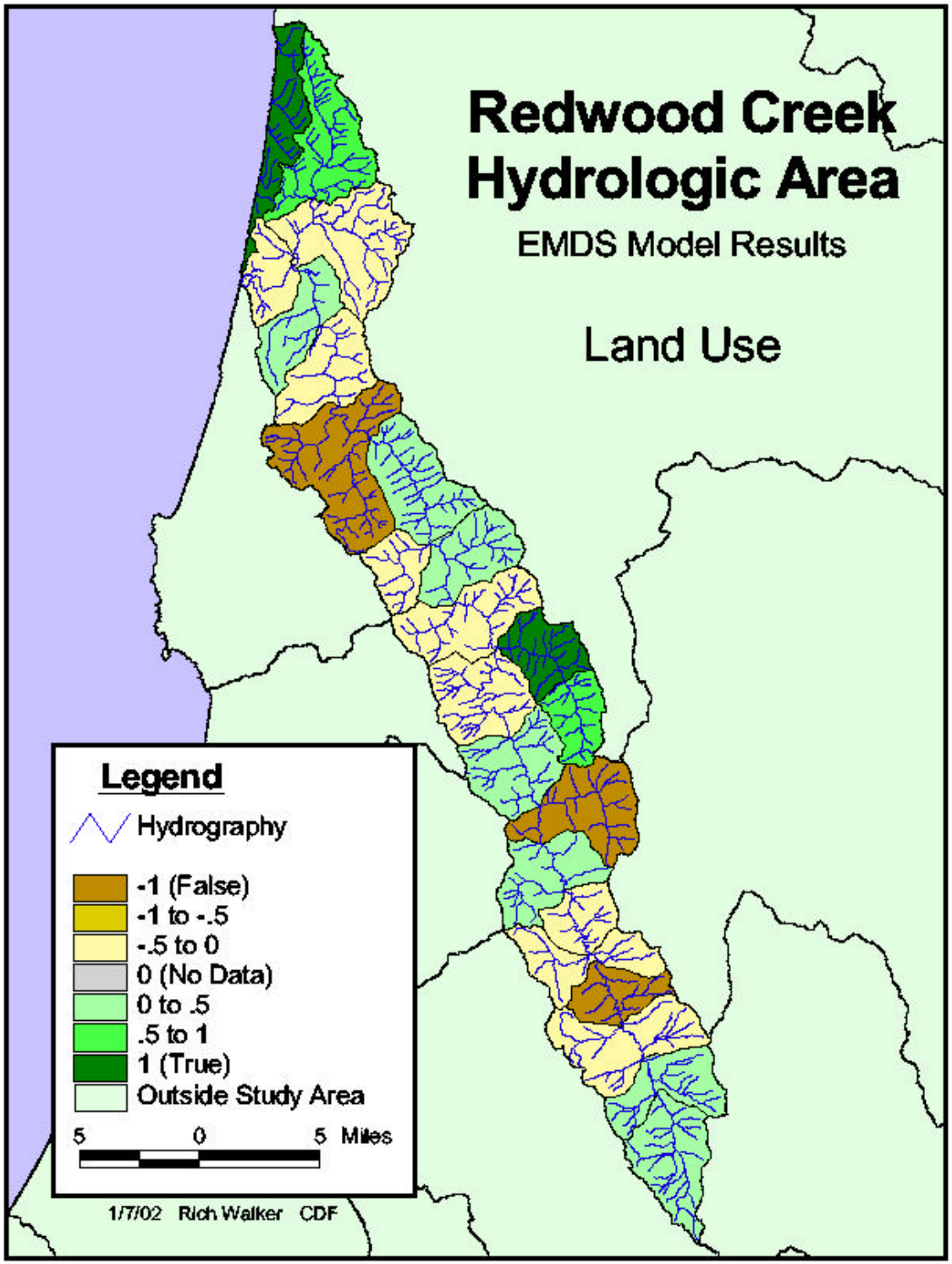
-1973 through 1989

-1945 through 1972

-Prior to 1945

EXTENSIVE – current livestock use

Truth values were determined by fitting normal distribution to planning watershed land use values, then mapping 0^{th} percentile to +1 (true) and 100^{th} percentile to –1 (false).



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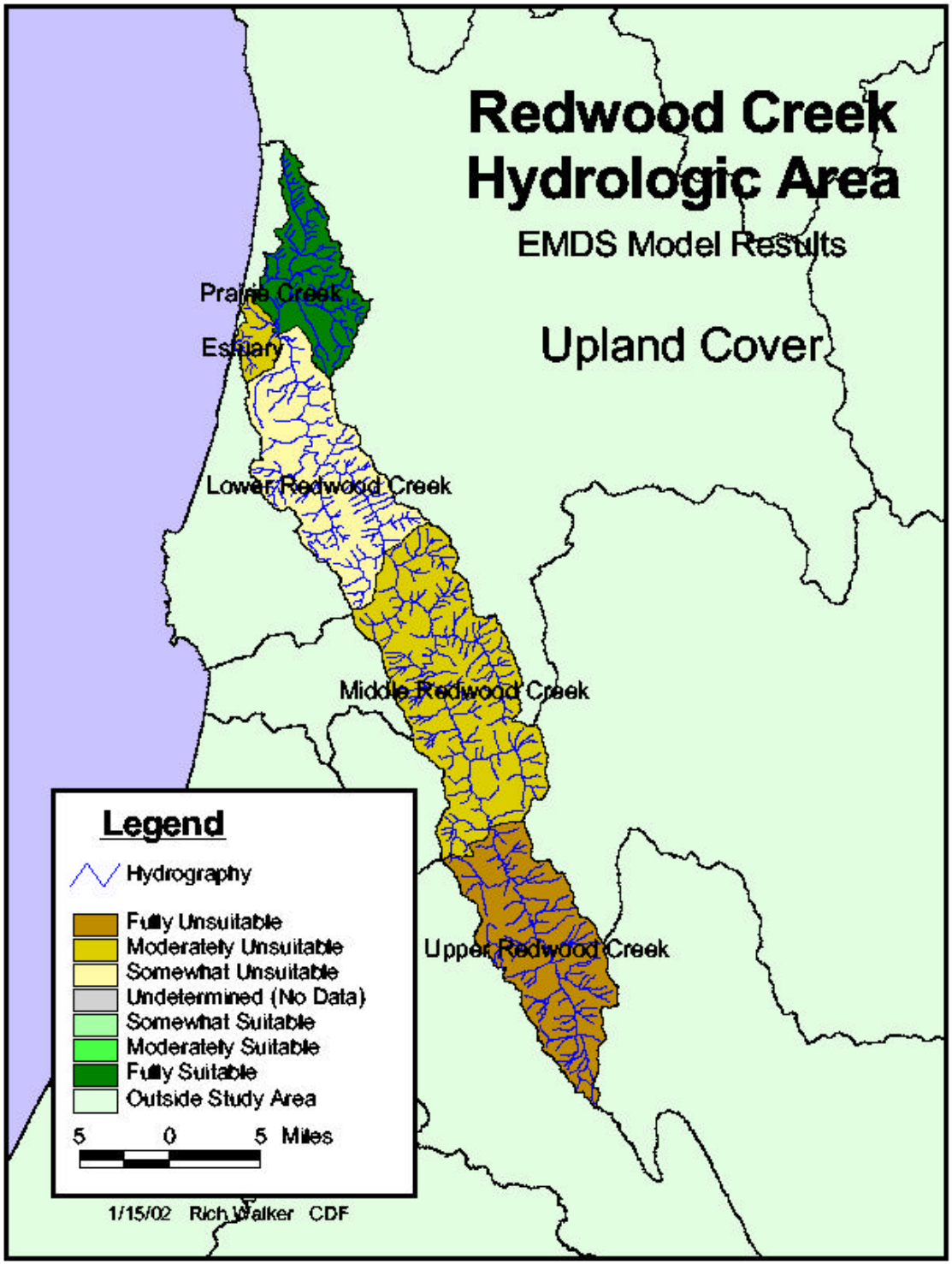


UPLAND COVER –

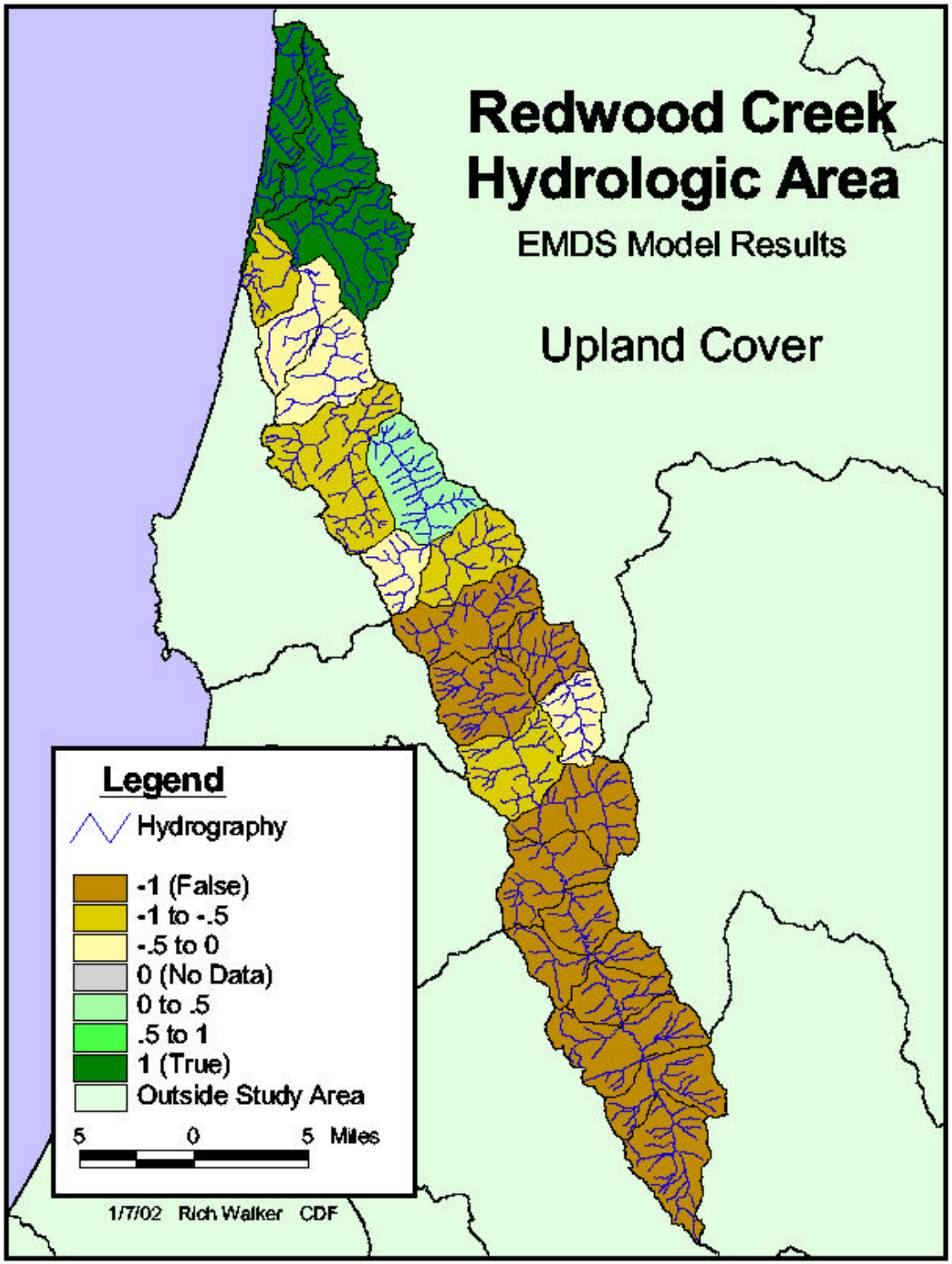
Proposition:

The condition of the natural vegetation in the upland of the Planning Watershed is suitable for sustaining healthy populations of native anadromous salmonids

Evaluated from:

CANOPY – percent of vegetation within pre-EuroAmerican settlement range of variation

SERAL OPENINGS – percent of area in vegetation <= 10 years since last stand-replacing disturbance



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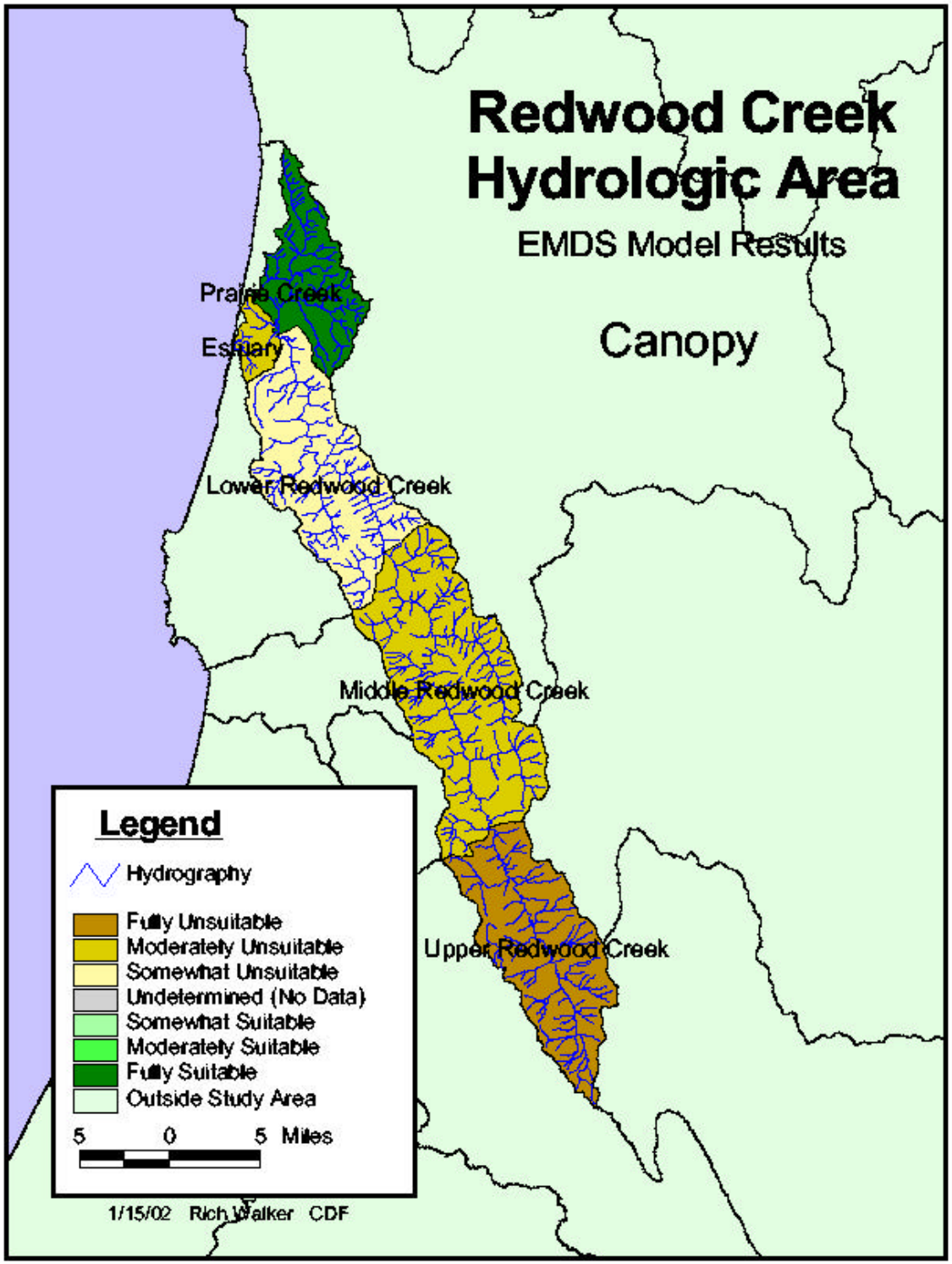


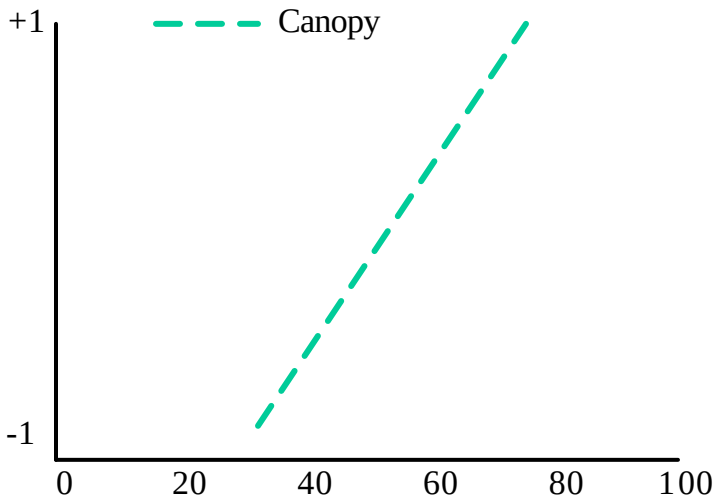
CANOPY –

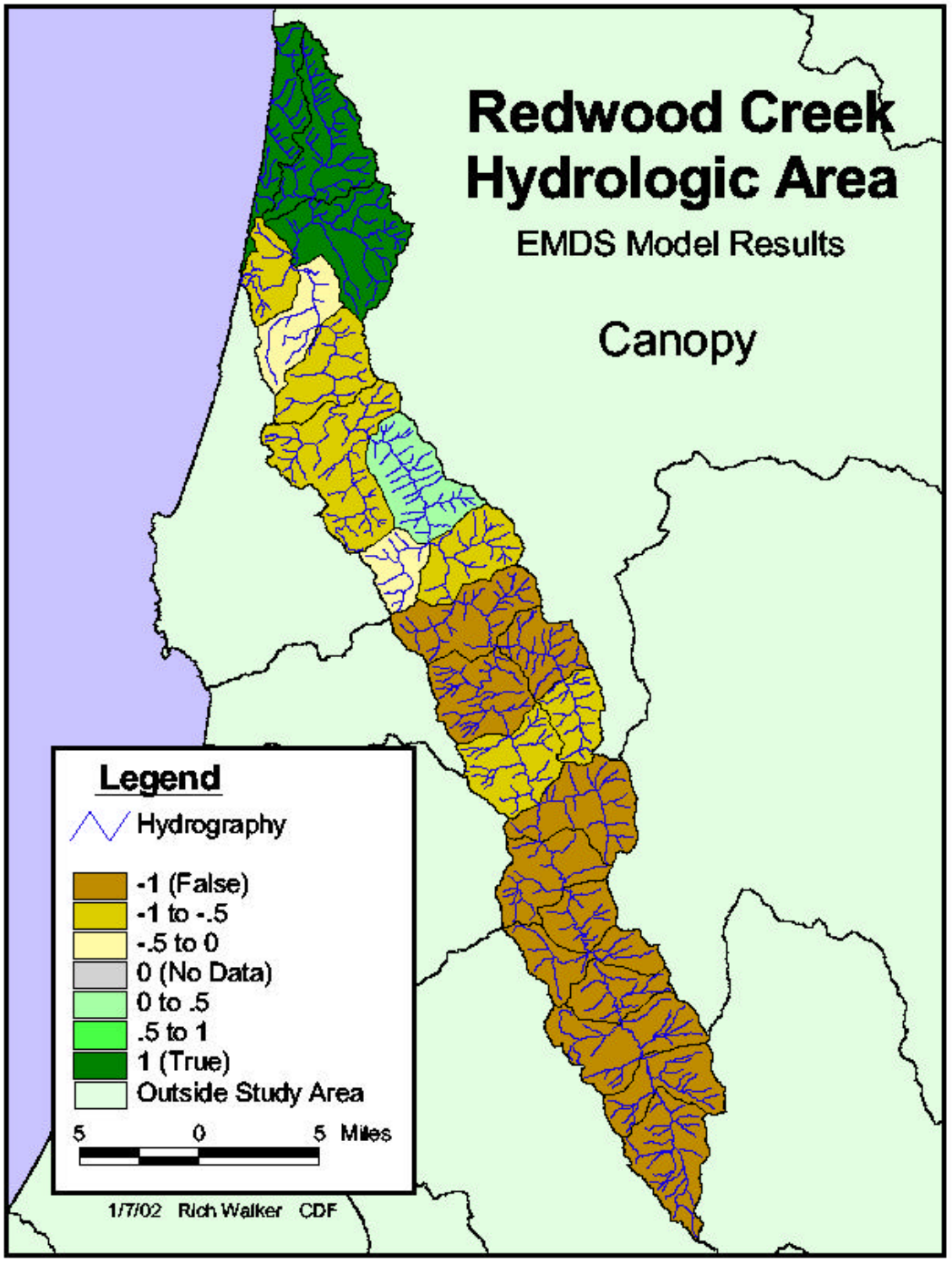
Proposition:

The condition of the vegetation canopy in the Planning Watershed is suitable for sustaining healthy populations of native anadromous salmonids

Evaluated from percentage of vegetation within pre-EuroAmerican range of variation, using total area in size classes with dbh >= 24".

Break Points: 30% low, 75% high
Units: area/area (%)





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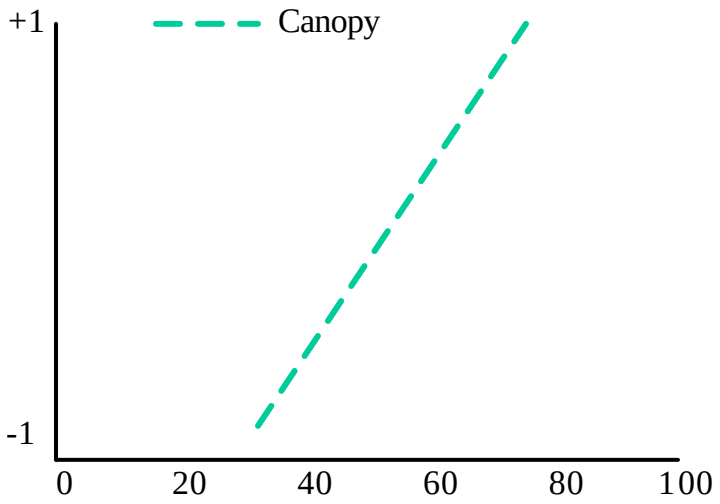
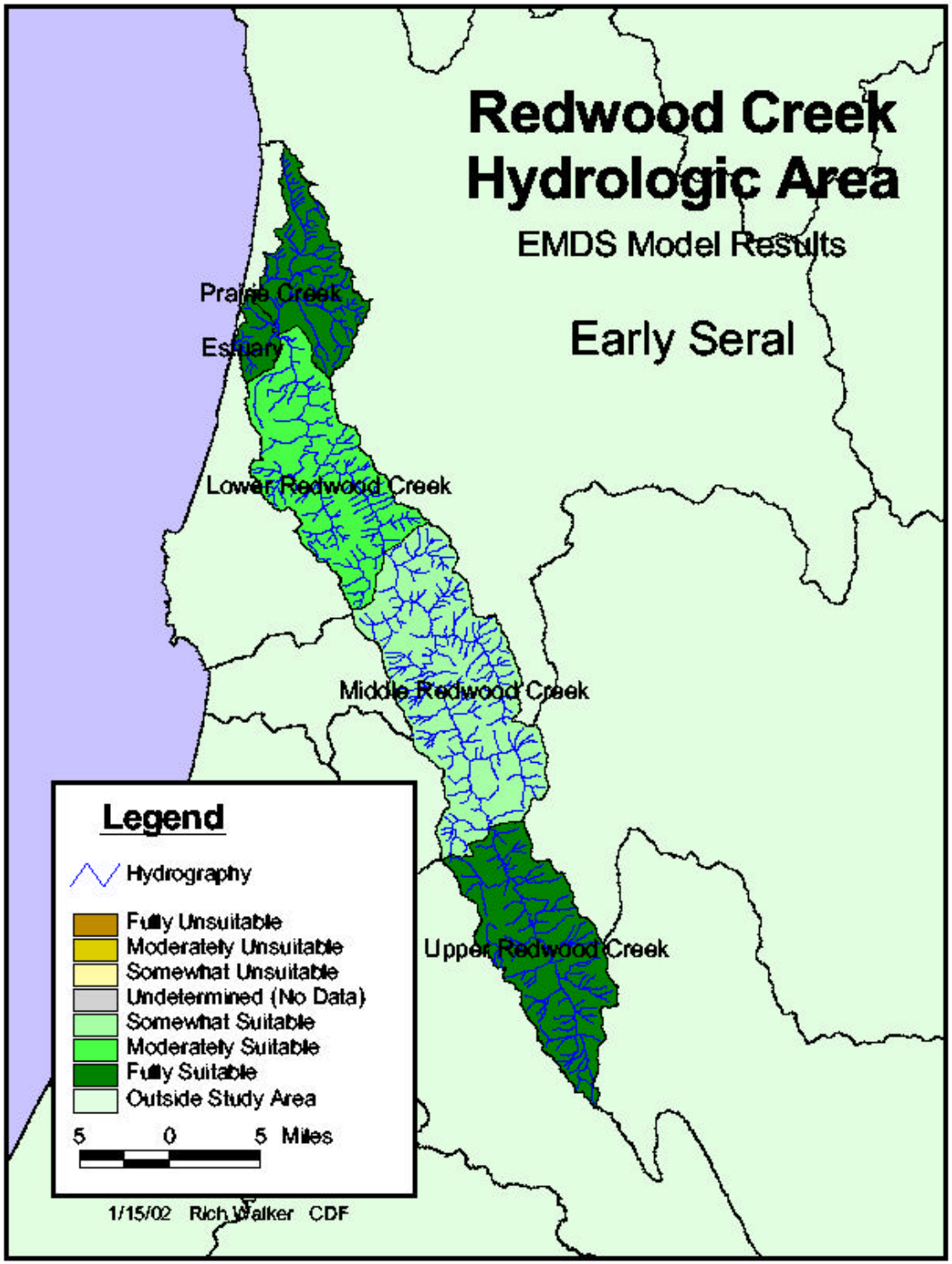




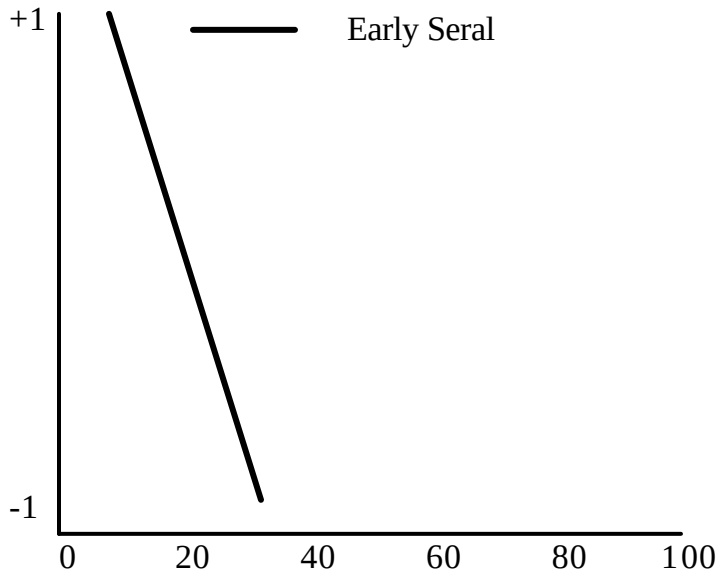
EARLY SERAL –

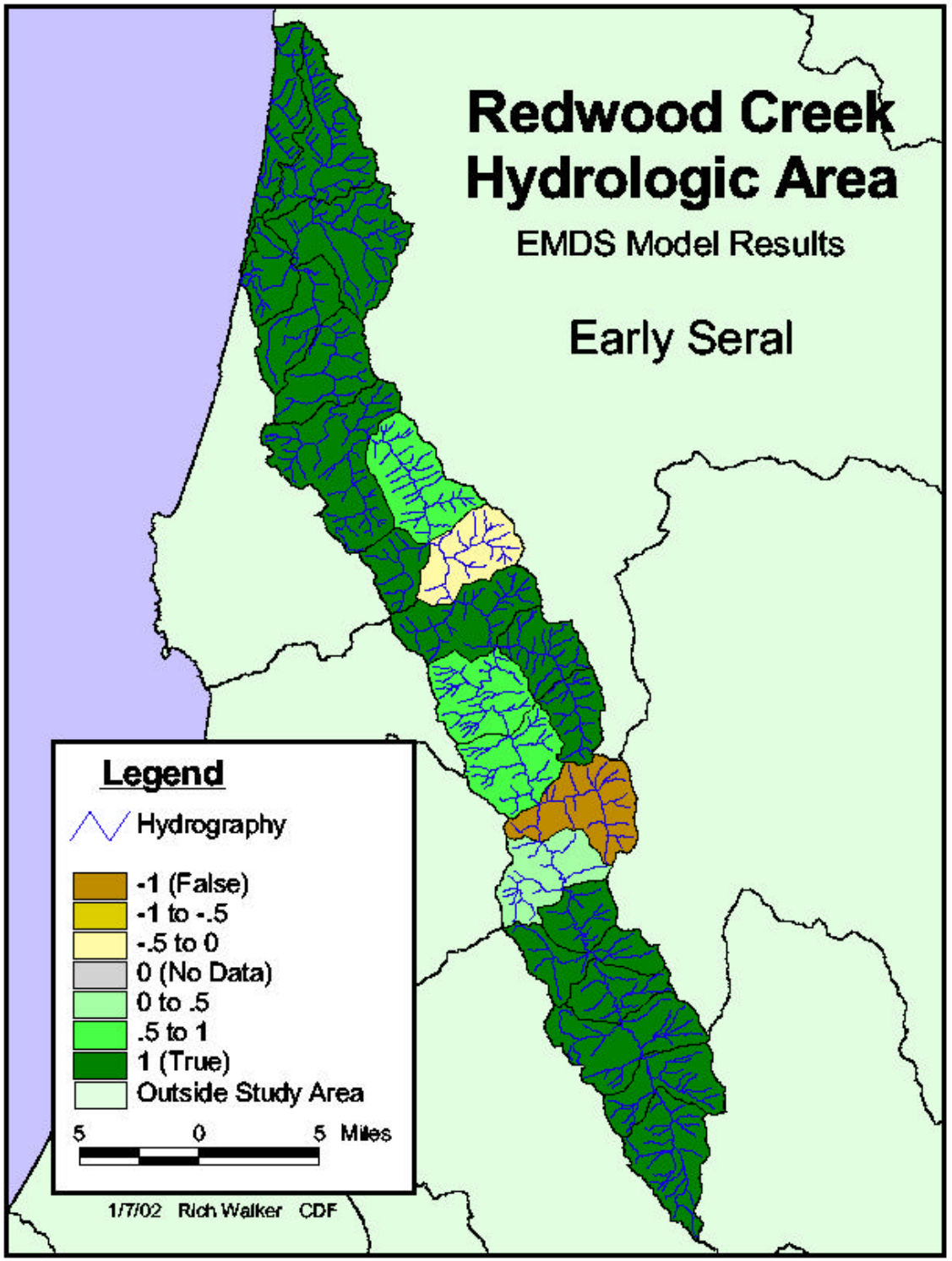
Proposition:

The amount of the early seral vegetation in the upland of the Planning Watershed is suitable for sustaining healthy populations of native anadromous salmonids

Evaluated from the percentage of area in vegetation <= 10 years since last stand-replacing disturbance

Break Points: 10% low, 30% high
Units: area/area (%)





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